(*i.e.*, lower productivity factor) which will subject them to the sharing obligation."[8] Why, reasons AT&T, should the Commission wait to see whether future circumstances justify regulatory intervention when it can regulate today in the name of preventing the appearance of any one of a number of phantoms and hobgoblins? Unless the Commission is clairvoyant, such a standard for triggering the Commission's intervention into the marketplace would surely raise *b* and thus generate many false positives in which the LECs' procompetitive behavior in adjacent markets would be throttled. That, no doubt, is why such a standard is appealing to the LECs' largest competitor. Moreover, that standard would waste the Commission's scarce resources (raise *Z*). Finally, and most conclusively, AT&T's proposal is antithetical on legal grounds to the Telecommunications Act of 1996 as a whole and to the forbearance authority that it specifically delegated to the Commission.

12. In short, for multiple reasons the Commission should reject AT&T's proposal to continue applying the Part 64 cost allocation rules to LECs subject to pure price caps. To embrace that proposal would unambiguously harm consumers and waste public and private resources.

III. THE CABLE INDUSTRY'S RECOMMENDATION FOR "REVERSE RAMSEY PRICING" WOULD HARM CONSUMER WELFARE.

13. The recommendation of the cable television industry that the Commission allocate at least 75 percent of common costs to the LEC's unregulated video services supports an alternative economic interpretation that the cable operators seem not to recognize. Under Ramsey pricing principles, which are the only truly defensible economic principles for allocation of common costs, the cable industry's 75-25 allocation of common costs would imply that video services such as cable

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[8] AT&T Comments at 11.

television are more price-inelastic than local exchange telephony.

14. The cable television industry might argue that the Commission does not allocate common costs on Ramsey pricing principles, so the observation is irrelevant. Even if the first part of the statement is true, however. the second part does not follow. The Telecommunications Act of 1996 did not dilute the Commission's duty to safeguard the public interest. It is well established in economic theory that consumer welfare is maximized when a multiproduct firm, whether a monopolist or a competitive firm, allocates common costs in inverse relationship to the respective price elasticities of demand for its products. Thus, by replicating the cost allocations that Ramsey pricing would imply for a LEC's video and telephony services, the Commission could produce a "reality check" on whether the cost allocation that it achieved through some alternative method (such as any of the fully distributed cost methods advocated in this proceeding) deviated substantially from the cost allocation that would maximize consumer welfare. In their recent book, *Talk Is Cheap*, Dr. Robert Crandall and Professor Leonard Waverman undertake an analogous exercise: They construct Ramsey prices "to estimate the magnitude of the current static welfare loss from regulatory rate distortion" that results in part from "the general mispricing of local and long-distance service."[9] Crandall and Waverman find that potential welfare gains in static efficiency from repricing local and long-distance are about $8 billion per year in the United States.[10] In addition to those static welfare gains, Crandall and Waverman stress the dynamic welfare gains that are possible:

> More rational pricing of local access services would surely induce more rapid entry

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[9] ROBERT W. CRANDALL & LEONARD WAVERMAN, TALK IS CHEAP: THE PROMISE OF REGULATORY REFORM IN NORTH AMERICAN TELECOMMUNICATIONS 88 (Brookings Institution 1996).

[10] *Id.* at 94.

> and competition, particularly for those subscribers in dispersed locations. This competition, in turn, would unleash a variety of new services and induce carriers to adopt more efficient technologies. Indeed, . . . it is possible that local telephone service—*properly priced*—is a contestable market in most locations given the preponderance of new technologies to reach subscribers.[11]

In other words, Ramsey pricing, if supplemented with "subsidies directly targeted on lower-income subscribers in the smaller communities," can simultaneously increase economic efficiency and achieve the equity objectives that Congress seeks to accomplish through its universal service policies.[12]

15. Notwithstanding the familiar caveats associated with Ramsey pricing,[13] the Crandall-Waverman analysis is highly pertinent to the cost allocation issues addressed in this proceeding. With a few back-of-the-envelope calculations, one can derive rough estimates of Ramsey prices for purposes of allocating the common costs of LEC provision of video and telephony. Put another way, if Ramsey pricing were to produce an allocation for the common costs of video and telephony that differed substantially from the allocation that the Commission actually employed (for whatever reason), then that fact would be powerful prima facie evidence that the Commission's cost allocation method was not maximizing consumer welfare and thus was not in the public interest. In actuality one can argue the case even more forcefully: The cable television industry has advocated a cost allocation method that will approximate "reverse Ramsey pricing."[14] That is, the cable industry's

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[11] *Id.* at 95 (emphasis in original).

[12] *Id.* at 96. "Whatever the cost of such programs to alleviate the burden of repricing on a few million low-income subscribers, it pales in comparison with the estimated $8 billion in annual welfare gains that could be achieved from more efficient pricing of telephone service offered by U.S. local telephone companies." *Id.*

[13] BAUMOL & SIDAK, TOWARD COMPETITION IN LOCAL TELEPHONY, *supra* note 7, at 35–42.

[14] *See* SAPPINGTON & WEISMAN, *supra* note 6, at 16, 30, 48–49.

proposal for allocating common costs comes closer to *minimizing* consumer welfare in this situation than maximizing it. From an economic perspective, that result is antithetical per se to the public interest.

16. In the case of subscriptions to basic cable television service, the Commission in 1994 surveyed the existing econometric evidence on own-price elasticity of demand and found that it ranged (in absolute value) from 1.054 to 3.375.[15] In other words, a 1 percent increase in basic cable rates would reduce demand for subscriptions anywhere from 1.05 percent to 3.38 percent. Accordingly, the Commission concluded: "Notwithstanding the differing econometric methodologies and data sets, the demand elasticities reported . . . generally suggest that the demand for cable television tends to be elastic."[16] Indeed, when U S West prepared to launch a video dialtone test in Omaha in 1995, Cox Cable began offering basic cable service for free.[17]

17. In contrast to the demand for cable service, the demand for local access is widely

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[15]Implementation of Section 19 of the Cable Television Consumer Protection and Competition Act of 1992; Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, First Report, CS Dkt. No. 94-48, 9 F.C.C. Rcd. 7442, 7561, Appendix H ¶¶ 16–18 (1994) (citing Robert W. Crandall, Elasticity of Demand for Cable Services and the Effect of Broadcast Signals on Cable Prices, paper appended to TCI Reply Comments in Mass Media Docket 90-4; Robert N. Rubinovitz, *Market Power and Price Increases for Basic Cable Service Since Deregulation*, 24 RAND J. ECON. 1 (1993); Tasneem Chipty, Horizontal Integration for Bargaining Power: Evidence from the Cable Television Industry, paper presented at the AEI Telecommunications Summit: Competition and Strategic Alliances, American Enterprise Institute (July 7, 1994) [subsequently published in 4 J. ECON. & MGMT. STRATEGY 375 (1995)]; J. Mayo & Y. Otsuka, *Demand, Pricing and Regulation; Evidence From the Cable TV Industry*, 22 RAND J. ECON. 396 (1991); R. Beil, T. Dazzio, R. Ekelund & J. Jackson, *Competition and the Pricing of Cable Television Services*, 6 J. REG. ECON. 401 (1993); George Ford, Competition in the Cable Television Industry: An Economic Analysis of Overlap Variations and Cable Prices (unpublished doctoral dissertation completed at Auburn University, 1994)).

[16]*Id.* at 7561, Appendix H ¶ 17. A LEC entering the video market would experience even more price elastic demand for *its* services because the LEC would be at least the third firm in the market—after the incumbent cable operator and the provider of direct broadcast satellite service.

[17] *Cox Gives Away Basic in Omaha*, BROADCAST & CABLE, Sept. 4, 1995, at 44.

considered to be price inelastic.[18] After thoroughly surveying the scholarly findings on the demand for access, Crandall and Waverman based their Ramsey pricing estimates on an own-price elasticity of demand for residential telephony access of 0.02 (in absolute value).[19] In other words, a 1 percent increase in the price of residential access would reduce demand by only 0.02 percent.

18. If the LEC's common costs of providing video and telephony were allocated under Ramsey pricing principles, then the inverse of the price elasticity for residential telephony access would be 1/0.02, or 50. The inverse of the price elasticity for basic cable service would be between 1/3.375 and 1/1.054, or between .30 and .95. Thus the ratio of the Ramsey allocation factor for telephony relative to that for basic cable service would be between 50/.95 and 50/.30, or between 52.6 and 166.7. Roughly speaking, Ramsey prices would dictate that the percentage markup above marginal cost for the LEC's telephony services be between 52 and 166 times the percentage markup above marginal cost for the LEC's video services. Those markups for telephony and video would be the means by which the LEC would recover its common costs of jointly providing both services. It is important to bear in mind also that, particularly in the first years following its entry into video services, a LEC would have many more customers for local access than for its video services. Consequently, the higher relative markups that Ramsey pricing would mandate for telephony, coupled with the LEC's higher number of local access customers than video customers, would cause virtually all the common costs to be recovered through the LEC's pricing of local access. Although

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[18] *See, e.g.*, LESTER D. TAYLOR, TELECOMMUNICATIONS DEMAND IN THEORY AND PRACTICE 256 (Kluwer Academic Publishers 1994).

[19] CRANDALL & WAVERMAN, *supra* note 9, at 92 (citing J. Bodnar, P. Dilworyth & S. Iacono, *Cross-Sectional Analysis of Residential Telephone Subscription in Canada*, 3 INFORMATION ECON. & POL'Y 359 (1988)).

the foregoing analysis admittedly warrants independent verification through rigorous econometric techniques, it nonetheless demonstrates at a conceptual level the irremediable problem with the cable television industry's proposal to allocate only 25 percent of those common costs to the LEC's telephony services: That allocation would more likely minimize consumer welfare than maximize it.

19. One final comment about intellectual consistency is warranted. If the cable operators wish to argue that their customers are so much more "captive" than the customers of the LECs, then they must accept the consequences. Let the Commission and courts note the relevance of that admission to claims by those same cable operators in other proceedings and litigation that they lack market power and should be excused from regulation or findings of liability that would constrain their exploitation of consumers having price-inelastic demands.

IV. THE PROPOSALS TO ALLOCATE THE COSTS OF "SPARE" FACILITIES TO VIDEO REST ON FALLACIOUS ECONOMIC REASONING.

20. The cable television industry urges the Commission to allocate the costs of "spare" facilities predominantly or exclusively to video.[20] That recommendation rests on two fallacies. First, it presumptuously predicts the future, venturing into the "Tomorrowland" pronouncements that my earlier affidavit urged the Commission to avoid.[21] Time Warner Cable, for example, states that "existing copper wire pairs . . are entirely satisfactory for the provision of traditional voice-grade

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[20]NCTA Comments at 21–22; California Cable Television Association Comments at 21; Cox Communications Comments at 10.

[21]Sidak Affidavit at 19–20 ¶ 26.

telephone service."[22] The cable television commenters thus imply that the future traffic of the LECs will be predominantly narrowband transmission of voice. The commenters ignore, among other trends, the growing demand to access the Internet and the growing demand to do so at faster speeds, which in turn will lead to greater demand for bandwidth. There is no reason to accept the cable companies' view of the future of local telephony, especially since it does not even comport with the observed state of current affairs

21. The second fallacy in the cable industries' recommendation on cost allocation for "spare" facilities is that it fundamentally mischaracterizes the current use that consumers derive from available capacity. Current consumers derive a current benefit from the ability of the existing telephony network to accommodate unexpected peaks in usage or growth in demand. Whether an investment is economically beneficial depends upon a wide variety of factors. Obviously, if current capacity is insufficient to meet demand at prevailing prices and an investment in plant yields added capacity, then the output generated by that added capacity unquestionably constitutes an economic benefit. Where capacity is not in short supply, further analysis may nonetheless reveal that some other form of current economic benefit accrues to utility customers and to the general public from capacity expansion. Those benefits may include greater network reliability and insurance against longer-period capacity shortages resulting from unforeseeable increases in demand. In addition, the availability of capacity at any given moment reflects that technology and other factors make investment inherently "lumpy."

22. Consumers of local exchange service currently benefit from all of those possible

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[22]Time Warner Cable Comments at 11.

consequences. Although at first glance it may appear otherwise, a benefit such as the avoidance of capacity shortages is not different in principle from direct financial benefits, such as lower operating costs. Each benefit has a savings in costs that corresponds to and appropriately measures its economic value, even if that value cannot be definitively quantified in monetary terms. For example, consumers clearly benefit if the I EC has enough additional capacity to reduce the risk of congestion or network failure. Provision against risk is a tangible product that is bought and sold in a market at observable prices, as the existence of the insurance industry attests.

23. The existence of "spare" capacity that reduces risk frees the LEC, and ultimately its customers, from the need to bear the costs that would be entailed in incurring those risks. It also frees the LEC's business customers from incurring the cost of business-interruption insurance against any financial damages to them arising from an outage of telecommunications services. Each of those burdens has an obvious financial cost whose magnitude can, at least in principle, generally be estimated.

24. Those considerations are manifest in the way that entrants aggressively compete against the LECs to attract large customers in the local exchange market. Competitive access providers attempt to distinguish their services from those provided by incumbent LECs on the basis of superior network reliability. MFS Communications, for example, provides the following statement of corporate strategy in its SEC Form 10-K:

> The Company's strategy is to become the primary provider of telecommunications services to business and government end users. The Company believes business and government users have distinct telecommunications service requirements, including maximum reliability, consistent high quality, capacity for high-speed data transmission, responsive customer service and continuous attention to service enhancement and new service development. The Company believes it has significant advantages over its competitors as a result of the Company's . . . expertise in

> developing highly reliable, advanced digital fiber optic networks which offer substantial transmission capacity . . . .[23]

To achieve the higher reliability that its customers demand, MFS provides intentional redundancy throughout its fiber optic network.[24]

25. Similarly, Teleport states in its recent prospectus:

> The Company uses the latest technologies and network architectures to develop a highly reliable infrastructure for delivering high-speed, quality digital transmissions of voice, data and video telecommunications. The basic transmission platform consists primarily of optical fiber equipped with high capacity SONET equipment deployed in self-healing rings. These SONET rings give TCG the capability of routing customer traffic simultaneously in both directions around the ring thereby eliminating loss of service in the even of a cable cut.
>
> . . . . Redundant electronics, with automatic switching to the backup equipment in the event of failure, protects against signal deterioration or outages. Continuous monitoring of system components focuses on proactively avoiding problems rather than just reacting upon failure.[25]

Teleport further states that one factor that promoted competition in local telecommunications markets after the AT&T divestiture was "technological advances in the transmission of data and video requiring greater capacity and reliability levels than copper-based ILEC networks were able to accommodate."[26]

26. Teleport, of course, is controlled by TCI, Cox, Comcast, and Continental. It is

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[23] MFS COMMUNICATIONS CO., 1995 SEC FORM 10-K at 1 (1996). "Because MFS believes it has certain advantages relative to quality control . . . resulting from its use of the Company's existing fiber optic networks, MFS Intelenet believes that it may enjoy certain advantages with respect to certain of its competitors." *Id.* at 6.

[24] "The end user's transmission signals are generally transmitted through the network simultaneously on both primary and alternate protection paths." *Id.* at 2.

[25] TELEPORT COMMUNICATIONS GROUP, INC., PROSPECTUS FOR 23,500,000 SHARES OF CLASS A COMMON STOCK 50 (June 3, 1996) (preliminary prospectus).

[26] *Id.* at 42.

therefore disingenuous and self-contradictory for those cable companies and their trade association to challenge the value to telephony customers of the LECs' levels of available capacity while stating, through Teleport, that although "CAPS generally offered . . . improved reliability in comparison to the ILECs," "[i]n recent years, the ILECs steadily have been increasing the amount of fiber used in their networks, thereby decreasing the competitive advantage held by the CAPs in the special access and private line markets."[27]

V. RATEPAYERS ALREADY SHARE IN THE LECS' ECONOMIES OF SCOPE.

27. It is specious on economic grounds for various commenters to argue that the Part 64 cost allocation rules are necessary to ensure that ratepayers share in the economies of scope arising from the LECs' joint provision of telephony and broadband services over their networks.[28] First, for the only forms of regulation for which Part 64 might be appropriate—namely, rate-of-return regulation or price-cap regulation with earnings sharing—consumers of telephony already share in such economies. The rate-of-return paradigm only awards the LEC its operating costs, a competitive

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[27] *Id.* Those four cable companies likewise invite the question of whether Teleport's expansion in local telephony has been cross-subsidized by captive cable television customers:

> TCG has benefited substantially from its relationships with the Cable Stockholders, which are among the largest media and cable television companies in the United States. Through such relationships, the Company has been able to utilize rights-of-way, obtain fiber optic facilities and share the cost of building new fiber optic networks, thereby allowing the Company to achieve significant economies of scale and scope through capital efficiencies in extending its existing networks in a rapid, efficient and cost-effective manner.

Id. at 45. Teleport, in short, believes that economies of scope between a regulated activity (cable television) and local telephony have made it a more effective entrant into local exchange markets, to the benefit of consumers there. Regulators have not denied telephony customers the benefits from Teleport's competitive entry on the rationale that such economies of scope raise the possibility that cable television customers have been forced to cross-subsidize such entry. Teleport's experience reminds us that in regulatory proceedings one man's economy of scope is another man's cross-subsidy.

[28] AT&T Comments at 3; NCTA Comments at 21.

return on invested capital, and a recovery of such capital over its useful life. If operating costs fall because of economies of scope. so do rates to consumers. For LECs subject to price caps with earnings sharing, consumers will receive an explicit pass-through of a share of the higher profits that the LEC can achieve due to economies of scope.

28. Second, in a competitive market multiproduct firms compete to pass along to consumers the lower costs arising from economies of scope. If, for example, economies of scope arise from producing both minivans and sport utility vehicles, Ford cannot refrain from passing those savings along to consumers through lower prices if Chrysler, General Motors, Toyota, Nissan, Honda, and others offer to do so And, of course, the probability that every producer in a competitive market would unilaterally decide not to lower price as its production costs fell is zero. Ford needs no regulator to tell it to share economies of scope with its customers. The LECs are no different. As the statements from MFS and Teleport quoted above amply document, local telephony has long been competitive for high-margin services provided to large customers, and it is rapidly becoming competitive even for services that the LECs have been compelled to offer at or below long-run incremental cost. Consequently, there is no reason to think that the same market forces that compel Ford to pass the benefits of economies of scope through to consumers will fail to compel the LECs to do likewise.

VI. THE CABLE INDUSTRY'S RECOMMENDED ALLOCATION OF COMMON COSTS WOULD FRUSTRATE THE UNIVERSAL SERVICE OBJECTIVES OF SECTION 254.

29. If the LECs must place a disproportionate share of the common costs of their broadband networks on video customers, then those carriers will have a dampened incentive to build

such networks and to compete in the provision of advanced telecommunications services that consumers may one day consider essential. That result would frustrate the universal service goals of new section 254.

30. The Telecommunications Act of 1996 rejects the static view in which universal service is plain old telephone service. "Universal service is an evolving level of telecommunications services that the Commission shall establish periodically . . . , taking into account advances in telecommunications and information technologies and services."[29] In establishing a new definition of universal service, the Commission is mandated to consider, among other factors, "the extent to which such telecommunications services . . . are being deployed in public telecommunications networks by telecommunications carriers."[30] To take one case, Teleport states in its current prospectus that it "is currently engaged in technical trials with certain cable television operators . . . for the provision of residential telephony services over the cable television operators' hybrid fiber-coaxial networks with TCG providing switching, call processing, call features and ancillary services."[31]

31. Although section 254(k) directs the Commission and the states "to ensure that services included in the definition of universal service bear no more than a reasonable share of the joint and common costs of facilities used to provide those services,"[32] it should be clear from a

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[29] 47 U.S.C. § 254(c)(1).

[30] *Id.* § 254(c)(1)(C).

[31] TELEPORT COMMUNICATIONS GROUP, INC., PROSPECTUS FOR 23,500,000 SHARES OF CLASS A COMMON STOCK 5 (June 3, 1996) (preliminary prospectus).

[32] 47 U.S.C. § 254(k).

statement such as Teleport's that the LECs' competitors will soon serve even residential customers from broadband networks that integrate video, voice, and data. It is therefore disingenuous for the cable industry to recommend that the Commission severely limit the LECs' ability to allocate the common costs of their broadband networks to their current telephony customers on the rationale that consumers of POTS will derive little benefit from the enhanced capacity and functionality of the LECs' broadband networks.

32. Moreover, as Crandall and Waverman argue in the passage quoted earlier, facilities-based competition for local access is far more likely to occur if Ramsey principles are employed to price telephony services correctly.[33] Further, if universal service policies are to achieve their objectives of maximizing subscribership and harnessing network externalities, then clearly the reverse Ramsey pricing proposed by the cable television industry would significantly curtail the level of subscription to advanced broadband services, the demand for which will surely be more price elastic than the demand for POTS.

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[33] CRANDALL & WAVERMAN, *supra* note 9, at 95.

CONCLUSION

33. It is human nature for commenters in Commission proceedings to make proposals that serve their economic self-interests. But one comes to expect commenters to temper their requests for favorable governmental action with some plausible explanation of how, as Adam Smith argued in *The Wealth of Nations*, their pursuit of self-interest will incidentally improve the collective economic welfare. It is therefore striking that the commenters in this proceeding that oppose competitive entry by the LECs into other telecommunications markets have failed to present any plausible economic rationale for proposals that would have the incidental but predictable effect of retarding the LECs' competitive entry into the video marketplace. Contrary to those hollow arguments, economic analysis counsels the Commission to forbear from applying the Part 64 cost allocation rules to LECs regulated under pure price caps and, for other LECs, either to leave the current rules alone or to streamline them to prevent strategic abuse of the regulatory process.

* * *

I hereby swear, under penalty of perjury, that the foregoing is true and correct, to the best of my knowledge and belief.

J. Gregory Sidak

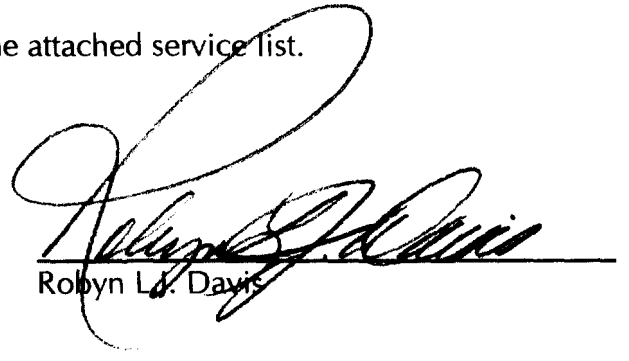
Subscribed and sworn to before me this 10 day of June, 1996.

Margaret H. Rattan
Notary Public

My Commission expires: 4/30/99.

CERTIFICATE OF SERVICE

I, Robyn L.J. Davis, do certify that on June12, 1996 reply comments of the United States Telephone Association were either hand-delivered, or deposited in the U.S. Mail, first-class, postage prepaid to the persons on the attached service list.



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